

# SAFETY DATA SHEET

Cat# BN00934 O-GlcNAc Modified Glycoprotein Assay Kit (FACS/Microscopy, Green Fluorescence)

## SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** O-GlcNAc Modified Glycoprotein Assay Kit (FACS/Microscopy, Green Fluorescence)  
**PRODUCT CODES:** Cat# BN00934  
**MANUFACTURER:** Assay Genie (brand of Reagent Genie Ltd.)  
**ADDRESS:** G1 The Steelworks, Foley Street, Dublin 1  
**EMERGENCY PHONE:** +353 1 8879802

## SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

| Component                     | Description                        | Volume | Safety Information |
|-------------------------------|------------------------------------|--------|--------------------|
| Wash Buffer (10X)             | Liquid                             | 25 ml  | No hazards         |
| Fixative Solution             | Solution (contains Formaldehyde)   | 10 ml  | See below          |
| Permeabilization Buffer (10X) | Liquid                             | 25 ml  | No hazards         |
| GlcAz Label (1000X)           | Liquid                             | 10 µl  | No hazards         |
| Copper Reagent (100X)         | Solution (contains Copper Reagent) | 100 µl | See below          |
| Fluorescent Alkyne (100X)     | Liquid                             | 100 µl | No hazards         |
| Reducing Agent (20X)          | Liquid                             | 500 µl | No hazards         |
| Total DNA Stain (1000X)       | Liquid                             | 20 µl  | No hazards         |

### Copper Reagent:

#### Emergency Overview

**GHS Classification:** Acute aquatic toxicity (Category 1), H400  
Chronic aquatic toxicity (Category 1), H410

**GHS Label elements, including precautionary statements**

**Pictogram:**



**Signal word:** Warning  
**Hazard statement(s):** H410 Very toxic to aquatic life with long lasting effects.  
**Precautionary statement(s):** P273 Avoid release to the environment.  
P391 Collect spillage.  
P501 Dispose of contents/ container to an approved waste disposal plant.

#### HMIS Classification

**Health hazard:** 2  
**Fire hazard:** \*  
**Flammability:** 0  
**Physical hazards:** 0

#### NFPA Rating

**Health Hazard:** 2  
**Fire:** 0  
**Reactivity Hazard:** 0

#### Potential Health Effects

**Inhalation:** Toxic if inhaled. Causes respiratory tract irritation.  
**Skin:** Toxic if absorbed through skin. Causes skin irritation.  
**Eyes:** Causes eye irritation.  
**Ingestion:** Toxic if swallowed.

### Formaldehyde:

#### Emergency Overview

**OSHA Hazards:** Target organ effect, Toxic by ingestion, Toxic by skin absorption, Skin and respiratory sensitizer, Corrosive, Carcinogen  
**Target Organs:** Eyes, Kidney, Liver, Heart  
**GHS Classification:** Acute toxicity, Oral (Category 3)

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Acute toxicity, Dermal (Category 3)  
Serious eye damage (Category 1)  
Skin irritation (Category 2)  
Respiratory sensitization (Category 1)  
Skin sensitization (Category 1)  
Carcinogenicity (Category 2)  
Acute aquatic toxicity (Category 3)

### GHS Label elements, including precautionary statements



Pictogram:

Signal word:

Danger

Hazard statement(s):

H301+H311 Toxic if swallowed or in contact with skin.  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H318 Causes serious eye damage.  
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H351 Suspected of causing cancer.  
H402 Harmful to aquatic life.

Precautionary statement(s):

P261 Avoid breathing dust/fumes/gas/mist/vapors/spray.  
P264 Wash hands thoroughly after handling.  
P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P311 Call a POISON CENTER or doctor/physician.

### HMIS Classification

Health hazard: 3

Chronic health hazard: \*

Flammability: 0

Physical hazards: 0

### NFPA Rating

Health Hazard: 3

Fire: 0

Reactivity Hazard: 0

### Potential Health Effects

**Inhalation:** May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

**Skin:** Toxic if absorbed through skin. Causes skin burns.

**Eyes:** Causes eye burns.

**Ingestion:** Toxic if swallowed.

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### SECTION 3: HAZARDS IDENTIFICATION

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| Component      | CAS Number | EC-No.    | Molecular Weight | Chemical Formula |
|----------------|------------|-----------|------------------|------------------|
| Copper Reagent | --         | --        | --               | --               |
| Formaldehyde   | 50-00-0    | 200-001-8 | 30.03            | HCHO             |

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### SECTION 4: FIRST AID MEASURES

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**General advice:** Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**If inhaled:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact:** Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact:** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**If swallowed:** DO NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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### SECTION 5: FIRE-FIGHTING MEASURES

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**Condition of flammability:** Not flammable or combustible.

**Suitable extinguishing media:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Special protective equipment for fire-fighters:** Wear self-contained breathing apparatus for firefighting if necessary.

**Hazardous combustion products:** Hazardous combustion products formed under fire conditions— carbon oxides, nitrogen oxides.

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## SECTION 6: ACCIDENTAL RELEASE MEASURES

**Personal precautions:** Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

**Environmental precautions:** Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

**Methods for cleaning up:** Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

## SECTION 7: HANDLING AND STORAGE

### Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Use explosion-proof equipment. Keep away from sources of ignition (no smoking). Take measures to prevent the buildup of electrostatic charge.

### Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place.

Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage temperature: -20 °C

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### Formaldehyde:

| Components   | CAS-No.   | Value | Control parameters | Basis                                   |
|--------------|---|-------|--------------------|---|
| Formaldehyde | 50-00-0   | C     | 0.3 ppm            | USA. ACGIH Threshold Limit Values (TLV) |
| Remarks:     | Eye & upper respiratory tract irritation. Suspected human carcinogen. Sensitizer<br>Substance listed, for more information see OSHA document 1910.1048<br>See 1910.1048 |       |                    |   |
|              |   | TWA   | 0.016 ppm          | USA. NIOSH Recommended Exposure Limits  |
|              | Potential occupational carcinogen. See Appendix A, 15 minutes ceiling value.  |       |                    |   |
|              |   | C     | 0.1 ppm            | USA. NIOSH Recommended Exposure Limits  |
|              | Potential occupational carcinogen. See Appendix A, 15 minutes ceiling value.  |       |                    |   |

### Personal protective equipment

#### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

#### Eye protection

Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

#### Skin and body protection

Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

| Property                   | Copper Reagent    | Formaldehyde      |
|----------------------------|-------------------|-------------------|
| Appearance:                | blue liquid       | Clear liquid      |
| pH:                        | No data available | No data available |
| Water Solubility:          | No data available | No data available |
| Other Solubility:          | No data available | No data available |
| Boiling Point (°C):        | No data available | No data available |
| Melting Point (°C):        | No data available | No data available |
| Flash Point (°C):          | No data available | No data available |
| Ignition Temperature (°C): | No data available | No data available |
| Density:                   | No data available | No data available |

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## SECTION 10: STABILITY AND REACTIVITY

| Property                                 | Copper Reagent  | Formaldehyde            |
|--|---|-------------------------|
| <b>Chemical stability:</b>               | Stable under recommended storage conditions   |                         |
| <b>Conditions to avoid:</b>              | No data available   | No data available       |
| <b>Materials to avoid:</b>               | Powdered metals, Anhydrous copper(II) sulfate, reacts violently with:, hydroxylamine, Magnesium | Strong oxidizing agents |
| <b>Hazardous decomposition products:</b> | No data available   | Carbon oxides           |

## SECTION 11: TOXICOLOGICAL INFORMATION

### **Copper Reagent:**

**Acute toxicity:** no data available

**Skin corrosion/irritation:** no data available

**Serious eye damage/eye irritation:** no data available

**Respiratory or skin sensitization:** no data available

**Germ cell mutagenicity:** no data available

### **Carcinogenicity:**

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive toxicity:** no data available

**Teratogenicity:** no data available

**Specific target organ toxicity – single exposure (GHS):** Causes damage to organs.

**Specific target organ toxicity – repeated exposure (GHS):** no data available

### **Potential Health Effects**

**Inhalation:** Toxic if inhaled. Causes respiratory tract irritation.

**Skin:** Toxic if absorbed through skin. Causes skin irritation.

**Eyes:** Causes eye irritation.

**Ingestion:** Toxic if swallowed.

**Signs and Symptoms of Exposure:** no data available

**Additional information:** no data available

RTECS: no data available

### **Formaldehyde:**

**Acute toxicity:** no data available

**Skin corrosion/irritation:** no data available

**Serious eye damage/eye irritation:** Eyes: no data available

**Respiratory or skin sensitization:** no data available

**Germ cell mutagenicity:** no data available

### **Carcinogenicity:**

IARC: 1 - Group 1: Carcinogenic to humans (Formaldehyde)

NTP: Reasonably anticipated to be a human carcinogen (Formaldehyde)

**Reproductive toxicity:** no data available

**Teratogenicity:** no data available

**Specific target organ toxicity - single exposure (Globally Harmonized System):** no data available

**Specific target organ toxicity - repeated exposure (Globally Harmonized System):** no data available

**Aspiration hazard:** no data available

### **Potential Health Effects**

**Inhalation:** May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

**Skin:** Toxic if absorbed through skin. Causes skin burns.

**Eyes:** Causes eye burns.

**Ingestion:** Toxic if swallowed.

**Signs and Symptoms of Exposure:** Exposure may cause burning sensation, cough, wheezing, laryngitis, shortness of breath, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema. Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.

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## SECTION 12: ECOLOGICAL INFORMATION

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**Persistence and degradability:** no data available  
**Toxicity:** no data available  
**Bioaccumulative potential:** no data available  
**Mobility in soil:** no data available  
**PBT and vPvB assessment:** no data available  
**Other adverse effects:** no data available

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## SECTION 13: DISPOSAL CONSIDERATIONS

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**Product:** Observe all federal, state, and local environmental regulations.  
**Contaminated packaging:** Dispose of as unused product.

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## SECTION 14: TRANSPORT INFORMATION

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**Copper Reagent:**

**DOT (US):** UN-number: 3082, Class: 9, Packing group: III; Proper shipping name: Copper Reagent; Reportable Quantity (RQ): 400 lbs.; Marine pollutant: No; Poison inhalation hazard: No  
**IMDG:** UN-number: 3082, Class: 9, Packing group: III; EMS-No: F-E, S-D; Proper shipping name: COPPER REAGENT; Marine pollutant: No  
**IATA:** UN-number: 3082, Class: 9, Packing group: III; Proper shipping name: Copper Reagent

**Formaldehyde:**

**DOT (US):** UN number: 2209, Class: 8, Packing group: III; Proper shipping name: Formaldehyde solutions; Reportable Quantity (RQ): 200 lbs; Marine pollutant: No; Poison Inhalation Hazard: No  
**IMDG:** UN number: 2209, Class: 8, Packing group: III; EMS-No: F-A, S-B; Proper shipping name: FORMALDEHYDE SOLUTION; Marine pollutant: No  
**IATA:** UN number: 2209, Class: 8, Packing group: III; Proper shipping name: Formaldehyde solution

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## SECTION 15: REGULATORY INFORMATION

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**SARA 302 Components:** SARA 302: The following components are subject to reporting levels established by SARA Title III, Section 302  
Formaldehyde, CAS-No. 50-00-0; Revision Date: 2007-07-01

**SARA 313 Components:** The following components are subject to reporting levels established by SARA Title II, Section 313:

Copper Reagent, CAS-No. --; Revision Date: 2007-07-01

Formaldehyde, CAS-No. 50-00-0; Revision Date: 2007-07-01

**SARA 311/312 Hazards:**

Copper Reagent: Acute Health Hazard, Chronic Health Hazard

Formaldehyde: Acute Health Hazard, Chronic Health Hazard

**Massachusetts Right To Know Components:**

Copper Reagent, CAS-No. --; Revision Date: 2007-07-01

Formaldehyde, CAS-No. 50-00-0; Revision Date: 2007-07-01

**Pennsylvania Right To Know Components:**

Copper Reagent, CAS-No. --; Revision Date: 2007-07-01

Formaldehyde, CAS-No. 50-00-0; Revision Date: 2007-07-01

**New Jersey Right To Know Components:**

Copper Reagent, CAS-No. --; Revision Date: 2007-07-01

Formaldehyde, CAS-No. 50-00-0; Revision Date: 2007-07-01

**California Prop. 65 Components:** This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

**EU regulations:**

| Component      | Risk Phrases             | Safety Phrases           |
|----------------|--------------------------|--------------------------|
| Copper Reagent | R11, R23/24/25, R33      | S16, S24/25, S36/37, S45 |
| Formaldehyde   | R24/25, R35, R40, R42/43 | S26, S36/37/39, S45, S51 |

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## SECTION 16: OTHER INFORMATION:

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**DISCLAIMER:**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions.

## **SAFETY DATA SHEET**

**Cat# BN00934 O-GlcNAc Modified Glycoprotein Assay Kit (FACS/Microscopy, Green Fluorescence)**

It does not represent any guarantee of the properties of the product. Assay Genie shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.